

isc Silicon PNP Power Transistor

2SB1347

DESCRIPTION

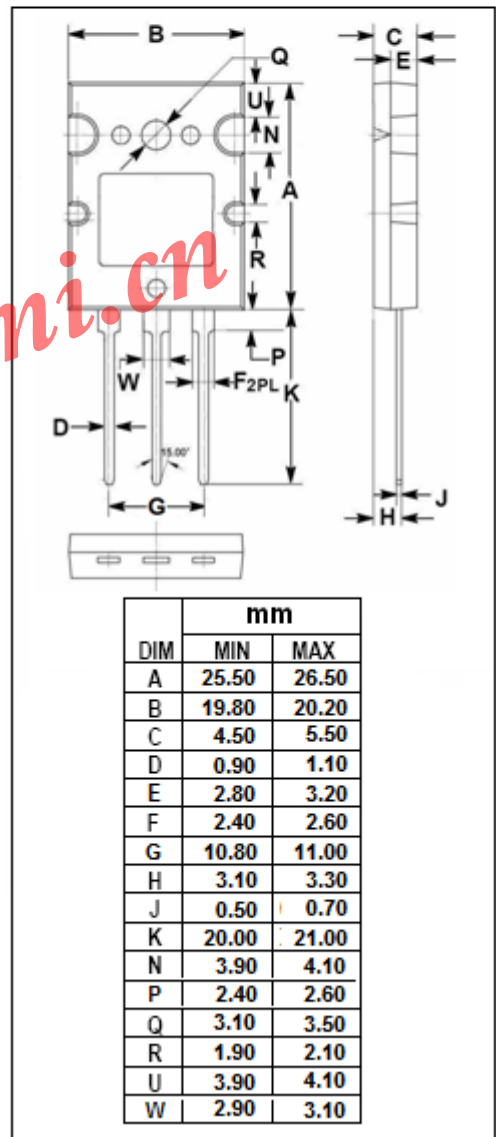
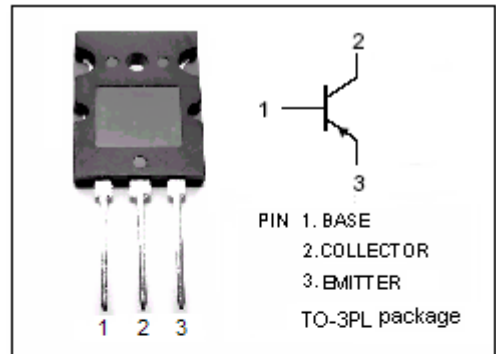
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -160V(\text{Min})$
- Wide Area of Safe Operation
- Complement to Type 2SD2029

APPLICATIONS

- Power amplifier applications
- Optimum for the output stage of a HiFi audio amplifier

ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

| SYMBOL    | PARAMETER   | VALUE   | UNIT             |
|-----------|---|---------|------------------|
| $V_{CBO}$ | Collector-Base Voltage                                  | -160    | V                |
| $V_{CEO}$ | Collector-Emitter Voltage                               | -160    | V                |
| $V_{EBO}$ | Emitter-Base Voltage                                    | -5      | V                |
| $I_C$     | Collector Current-Continuous                            | -12     | A                |
| $I_{CM}$  | Collector Current-Peak                                  | -20     | A                |
| $P_C$     | Collector Power Dissipation<br>@ $T_C=25^\circ\text{C}$ | 120     | W                |
|           | Collector Power Dissipation<br>@ $T_a=25^\circ\text{C}$ | 3.5     |                  |
| $T_J$     | Junction Temperature                                    | 150     | $^\circ\text{C}$ |
| $T_{stg}$ | Storage Temperature Range                               | -55~150 | $^\circ\text{C}$ |



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## ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$  unless otherwise specified

| SYMBOL        | PARAMETER                            | CONDITIONS   | MIN | TYP. | MAX  | UNIT          |
|---------------|--------------------------------------|--|-----|------|------|---------------|
| $V_{CE(sat)}$ | Collector-Emitter Saturation Voltage | $I_C = -8\text{A}; I_B = -0.8\text{A}$             |     |      | -2.0 | V             |
| $V_{BE(on)}$  | Base-Emitter On Voltage              | $I_C = -8\text{A}; V_{CE} = -5\text{V}$            |     |      | -1.8 | V             |
| $I_{CBO}$     | Collector Cutoff Current             | $V_{CB} = -160\text{V}; I_E = 0$                   |     |      | -50  | $\mu\text{A}$ |
| $I_{EBO}$     | Emitter Cutoff Current               | $V_{EB} = -3\text{V}; I_C = 0$                     |     |      | -50  | $\mu\text{A}$ |
| $h_{FE-1}$    | DC Current Gain                      | $I_C = -20\text{mA}; V_{CE} = -5\text{V}$          | 20  |      |      |               |
| $h_{FE-2}$    | DC Current Gain                      | $I_C = -1\text{A}; V_{CE} = -5\text{V}$            | 60  |      | 200  |               |
| $h_{FE-3}$    | DC Current Gain                      | $I_C = -8\text{A}; V_{CE} = -5\text{V}$            | 20  |      |      |               |
| $C_{OB}$      | Output Capacitance                   | $I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$ |     | 400  |      | pF            |
| $f_T$         | Current-Gain—Bandwidth Product       | $I_C = -0.5\text{A}; V_{CE} = -5\text{V}$          |     | 15   |      | MHz           |

◆  $h_{FE-2}$  Classifications

| Q      | S      | P       |
|--------|--------|---------|
| 60-120 | 80-160 | 100-200 |